

# (12) UK Patent Application (19) GB (11) 2 356 134 (13) A

(43) Date of A Publication 16.05.2001

(21) Application No 9926635.5

(22) Date of Filing 10.11.1999

(71) Applicant(s)  
**Vivid Engineering Ltd**  
(Incorporated in the United Kingdom)  
5 Sherwood Street, Piccadilly, LONDON, W1V 7RA,  
United Kingdom

(72) Inventor(s)  
**Conor McMenemie**

(74) Agent and/or Address for Service  
**Brookes & Martin**  
High Holborn House, 52-54 High Holborn, LONDON,  
WC1V 6SE, United Kingdom

(51) INT CL<sup>7</sup>  
**A47C 17/84**

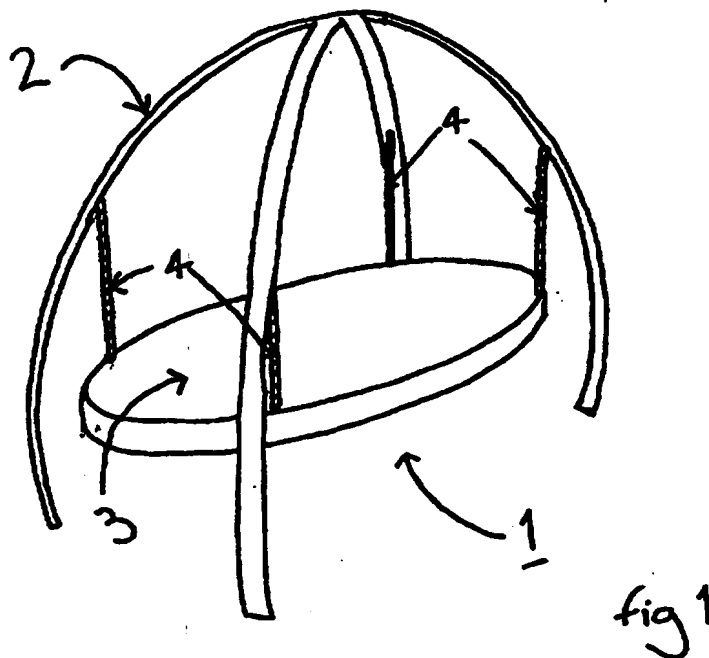
(52) UK CL (Edition S )  
**A4L LBNA L107**

(56) Documents Cited  
**DE 004304175 C** **US 4958391 A** **US 4951332 A**  
**US 4704750 A** **US 3882554 A**

(58) Field of Search  
UK CL (Edition R ) **A4L LAX LBNA LBNB**  
INT CL<sup>7</sup> **A45F 3/22 3/24 , A47C 17/84**  
Online: **EPODOC, JAPIO, WPI**

(54) Abstract Title  
**Bed**

(57) A bed (1) comprises a frame (2) and a sleeping platform (3). The sleeping platform (3) is suspended from the frame (2) by non-rigid connecting means (4). The frame comprises a plurality of legs (2) in structural communication with each other and at least partially projecting over the area of the sleeping platform (3). The connecting means (4) may be adjustable and are preferably wires, cords or chains. The sleeping platform may be oval and cupped. There may be four arcuate legs which meet to define an apex of the frame. A cover may be provided.



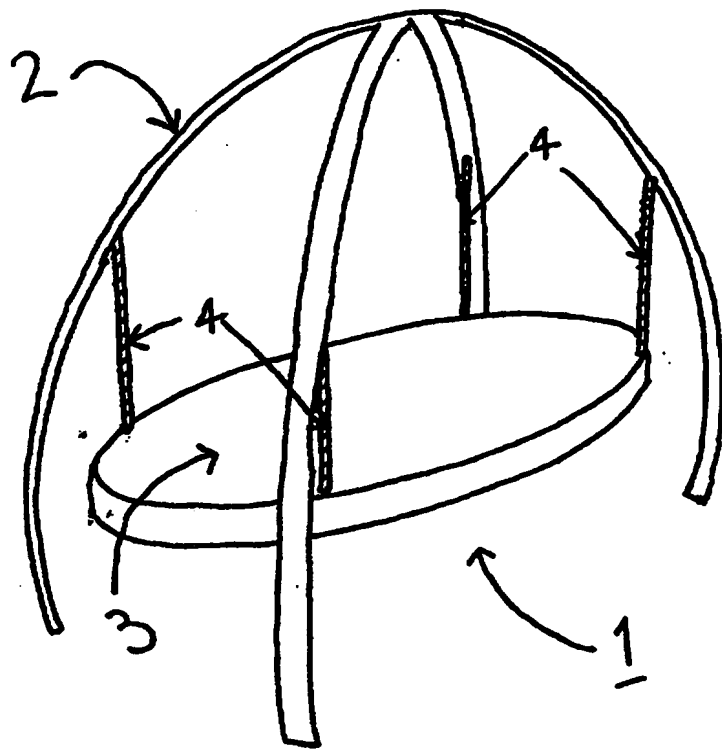


fig 1

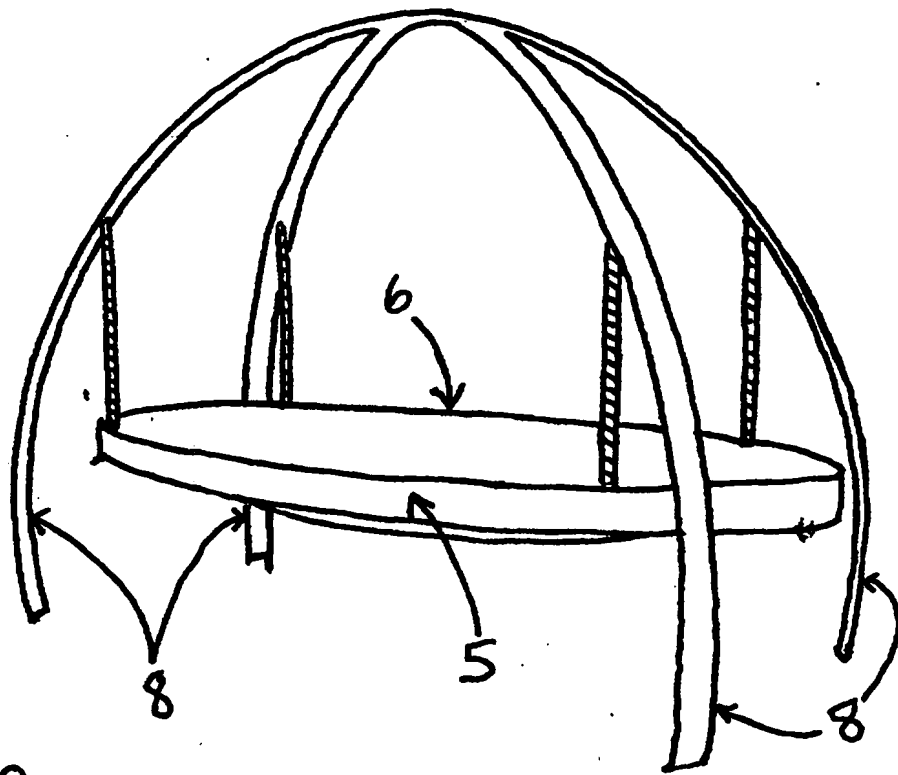
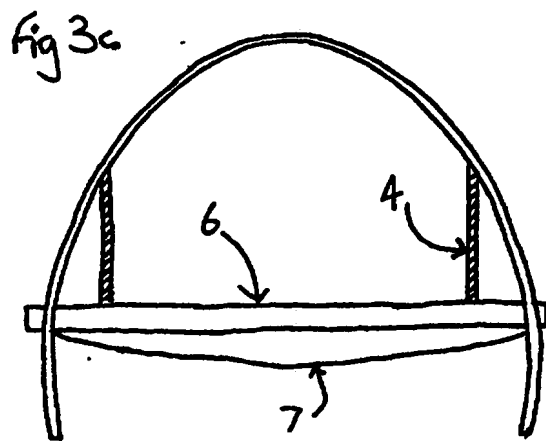
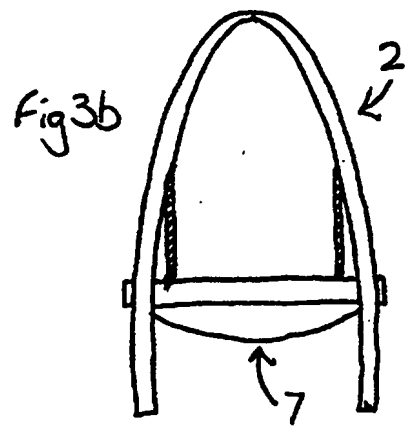
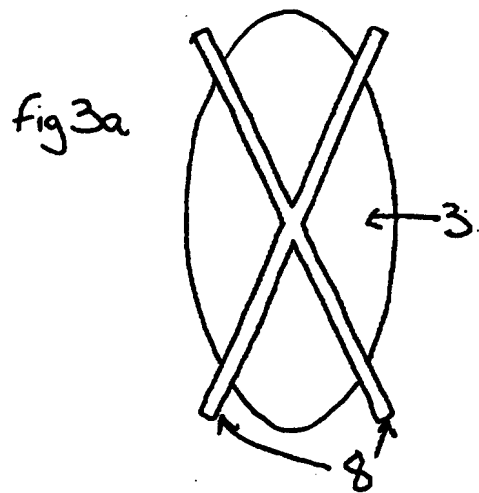


fig 2



**BED**

The invention relates, in general, to beds.

According to the invention there is provided a bed comprising a  
5 frame and a sleeping platform suspended therefrom by non-rigid  
connecting means, the frame comprising a plurality of legs in structural  
communication with each other, and at least partially projecting over the  
area of the sleeping platform.

In a preferred embodiment of the invention the sleeping platform  
10 is oval in shape, and the frame is a dome like shape.

In a further preferred embodiment of the invention, the frame is  
fitted with a tent like cover.

The invention will now be further described, by way of  
illustration only, with reference to the accompanying drawings, of  
15 which:

Figure 1 illustrates one embodiment of a bed according to the  
invention in perspective view;

Figure 2 illustrates the same embodiment from in an alternative  
perspective view; and

20 Figures 3a, 3b and 3c illustrate the same embodiment in plan and  
front and side elevations respectively.

In the illustrated embodiment of the bed of the invention, the bed (1) comprises a frame (2) is attached to a sleeping platform (3) by non-rigid connecting means (4). By non-rigid connecting means it is meant those means which allow for a degree of relative motion between the sleeping platform and the frame, such that the platform can 'rock' or sway. Conveniently the non-rigid connecting members are wire or cord. Alternatively springs, chains, Cardan shafts and the like can be used. It is desirable that the connecting members have an adjustable effective length so users can themselves determine how far off the floor the sleeping platform will be supported. This can be easily accomplished by providing pulley wheels and excess lengths of cord to be tied off.

Alternatively the height of the sleeping platform above the floor can be changed by providing a fixed length connecting member held in a movable fixture.

The sleeping platform is oval in plan view, and preferably elliptical. The platform (3) may have a skirting piece (5) to provide rigidity, and to allow the connecting members (4) to be easily attached. In a preferred embodiment the skirting piece also provides a raised lip (6) around the sleeping area. Other embodiments of the invention may include a sleeping platform that is circular.

In a further preferred embodiment, the sleeping area is a partial

ovoid (7). This shape may be achieved by forming the sleeping area from a moulded plastics material, or from a hammock-type construction.

This combination of oval platform, lip and cupped sleeping area allows or - if the platform is small enough - encourages, the occupant to  
5 sleep in the so-called 'foetal position'. The sleeping area need not be cupped however.

The illustrated embodiment has a frame (2) comprising a plurality of legs (8) in structural communication with each other, and at least partially extending over the area of the sleeping platform (3).

10 The frame conveniently consists of four legs which meet above the platform. The legs may each be arcuate, for instance one of the quarter sections of an ellipse divided at its major and minor axes, and affixed to a saltire cruciform bracket defining the apex of the frame. Such a construction allows the legs (8) to stand substantially vertically  
15 at the floor and lie substantially horizontally where they meet. It is preferred that the frame (2) can be dismantled for storage in or on the sleeping platform as a space-saving feature where the bed is not in continuous use.

It is advantageous for the bed (1) to be constructed from  
20 lightweight material. Solid or laminated wood, aluminium, steel veneered MDF, plastics, or a combination thereof will readily suggest

themselves as suitable. Wood is at present the preferred material where the bed is for use in the home. A wooden bed appears less intrusive to the home, and the material connotes warmth and a homely environment.

The bed is further provided with a tent-like textile cover,  
5 provided with an opening to allow access to the sleeping platform. The thickness, weave and colour of the cover can be chosen to substantially exclude light from reaching the sleeping platform, or for example to substantially exclude shorter wavelength visible light. It may also be desirable to reduce or muffle external noise.

10 The swaying motion of the sleeping platform coupled with the sense of confinement and absence or reduction of external visual and aural cues creates a comfortable relaxing environment which can conduce sleep.



**Claims**

1. A bed comprising a frame and a sleeping platform suspended therefrom by non-rigid connecting means, the frame comprising a plurality of legs in structural communication with each other, and at least partially projecting over the area of the sleeping platform.
2. A bed according to claim 1, wherein the height at which the sleeping platform rests above the floor may be adjusted by manipulation of the connecting means.
3. A bed according to claim 1 or claim 2 wherein the non-rigid connecting means are wires, cords or chains.
4. A bed according to claim 1, 2 or 3 wherein the sleeping platform is oval in plan view.
5. A bed according to claim 1, 2 or 3 wherein the sleeping platform is oval in plan view.
6. A bed according to any one of claims 1 to 5 wherein the sleeping

area is cupped.

7. A bed according to any one of claims 1 to 5 wherein the sleeping area is substantially planar.

5

8. A bed according to any one of the preceding claims wherein the frame comprises three to eight legs.

9. A bed according to claim 8 wherein the frame comprises four  
10 legs.

10. A bed according to any one of the preceding claims wherein the legs meet to define the apex of the frame.

15 11. A bed according to claims 8, 9 or 10 wherein the legs are arcuate.

12. A bed according to any one of the preceding claims wherein the non-rigid connecting means are attached to the frame at each of the legs.

20 13. A bed according to any one of the preceding claims further comprising a tent-like cover supported by the frame.

14. A bed according to claim 13 wherein the cover is made of a textile material.

5 15. A bed according to claim 13 or claim 14 wherein the cover is provided with an opening to allow access to the sleeping platform.

16. A bed substantially as hereinbefore described with reference to the figures of the accompanying drawings.



INVESTOR IN PEOPLE

Application No: GB 9926635.5  
Claims searched: 1-16

8/

Examiner: N Franklin  
Date of search: 8 September 2000

## Patents Act 1977 Search Report under Section 17

### Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.R): A4L (LAX, LBNA, LBNB)

Int Cl (Ed.7): A45F 3/22, 3/24 A47C 17/84

Other: Online: EPODOC, JAPIO, WPI

### Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
X	DE 4304175C1 (CARSTEN) See Figure 1	1,3,7-10, 12
X	US 4958391 (EGELAND) See Figures 1&5	1,3,7-10, 12-14
X	US 4951332 (BARMETTLER) See Figures 1&3	1,3,6,8,9, 13-15
X	US 4704750 (WHEELLOCK) See Figures	1,3,7-9, 11,12
X	US 3882554 (GLASS) See Figure 1	1-3,8,9, 12

X Document indicating lack of novelty or inventive step  
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

& Member of the same patent family

A Document indicating technological background and/or state of the art.  
P Document published on or after the declared priority date but before the filing date of this invention.  
E Patent document published on or after, but with priority date earlier the filing date of this application.